

REMARKS/ARGUMENTS

I. Introduction:

Applicant's undersigned attorney would like to thank Examiner Haresh Patel for his clarification of the reference to paragraph numbers of the cited references in the Office Action dated May 24, 2005. The cross reference to column and line numbers the Examiner provided is appreciated.

Claims 1, 3-6, 8-11, 13-16, and 18-20 are amended herein.

II. Claim Objections:

Claims 1, 6, 11, and 16 have been amended to change "transmitting an . . . request for connection to establish link message" to "transmitting an . . . request for connection to establish link", as requested by the Examiner.

Claims 1, 6, 11, and 16 have also been amended to insert "ITU Recommendation" before "Q.921" and "Q.922" and insert "terminal equipment identifier (TEI) assigned state" before "state 4" and "awaiting establishment state" before "state 5", as requested by the Examiner.

Claim 16 has been amended to replace "Apparatus" with "An apparatus", as requested by the Examiner.

Claims 5, 10, 15, and 20 have been amended to insert "disconnect" before "DISC", as requested by the Examiner.

III. Claim Rejections – 35 U.S.C. 112:

Claims 1, 6, 11, and 16 have been amended to clarify that transmitting a disconnect request to the second device is performed in response to the link between the first device and the second device going down. Thus, there is only one "second device".

There is no second device going down, it is the link between the first and second device that is going down.

Claims 3, 8, 13, and 18 have been amended to replace “the data link establishment request” with “a data link establishment request”.

Claims 4, 9, 14, and 19 have been amended to replace “the request for connection to establish link message” with “the request for connection to establish link”.

IV. Claim Rejections – 35 U.S.C. 103:

Claims 1, 6, 11, 16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,333,932 (Kobayasi et al.) in view of U.S. Patent No. 5,553,135 (Xing) and iDA-Singapore. Claims 2, 7, 12, and 17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayasi, Xing and iDA-Singapore in view of U.S. Patent No. 6,587,464 (Brown et al.). Claims 3-5, 8-10, 13-15, and 18-20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayasi and iDA-Singapore in view of MCI e-mail.

Claims 1, 6, 11, and 16 all recite that a Q.921 data link establishment request is handled by first sending a Q.921 disconnect request to a peer device. Then a Q.921 request for connection is sent upon any one of 1) expiration of an awaiting-response timer, 2) receipt of a Q.921 disconnect message from the peer device, or 3) receipt of a Q.921 acknowledgement message from the peer device. The independent claims thus encompass a highly specific adaptation of the Q.922 connection logic. This adaptation has been carefully constructed to maintain compatibility with devices that do not themselves implement the adaptation. Changes to Q.922 connection procedures are minimized and the adaptation will operate correctly for all expected states of the peer device.

Kobayasi et al. disclose a connectionless communications system, test method, and intra-station control system. The system is configured to convert a message

assigned a destination address into one or more packets, store the destination in a beginning-of-message packet, and transfer the packets assigned a common message identifier. Applicants respectfully submit that Kobayasi et al. and the other art of record do not show or suggest a method for a first device to reestablish a link between the first device and a second device as set forth in the claims.

In particular, Kobayasi et al. and the other references cited do not show or suggest:

(a) transmitting an ITU Recommendation Q.921 disconnect request message from the first device in ITU Recommendation Q.922 terminal equipment identifier (TEI) assigned state (state 4) to the second device in response to the link between the first device and the second device going down;

(b) starting an awaiting response timer to start;

(c) upon any of expiration of the awaiting-response timer, receiving an ITU Recommendation Q.921 disconnect mode message from the second device, or receiving a Q.921 acknowledgement message from the second device, transmitting an ITU Recommendation Q.921 request for connection to establish link from the first device to the second device; or

(e) transitioning the first device to ITU Recommendation Q.922 (state 5).

With regard to element (a), the Examiner cites, for example, paragraphs 1621 (col. 97, lines 43-67), 4917 (col. 250, lines 48-63), 4931 (col. 251, lines 12-18), and 4933 (col. 251, lines 21-28) of the Kobayasi patent. These sections refer to testing a cell of the system, communications control, and intra-station communications. There is no discussion of transmitting a disconnect request, and certainly no discussion of transmitting a specific Q.921 message from a device in Q.922 state 4 in response to a link going down. Fig. 714 of the Kobayasi patent shows the procedure for establishing a communications link. There is clearly no transmission of a disconnect message. There is no discussion of Q.921 in the Kobayasi et al. patent and the only mention of Q.922 is with respect to pointing out differences from Q.922 in the communications

control (see, for example, section 2.5 of the Kobayasi et al. patent which lists the functions deleted from Q.922). Furthermore, Kobayasi et al. do not disclose transmitting a Q.921 connection request, as set forth in element (c).

As to the awaiting response timer set forth above in element (b), the Examiner refers to various sections of the Kobayasi et al. patent that discuss, for example, a pseudo-fault point, performance monitoring based on trigger input, interface initialization when a printer wiring circuit board is implemented, a reference clock, and software interface initialization. Kobayasi et al. do not show or suggest starting an awaiting response timer after transmitting a disconnect request message.

As noted by the Examiner, Kobayasi et al. do not disclose transitioning from Q.922 state 4 to state 5. Xing and iDA-Singapore do not remedy the deficiencies of the primary reference.

Xing is directed to a point-to-multipoint communication system having a central telephony unit and a telephony module interface. Table 2 merely lists state descriptions for the telephony module. The table of the iDA-Singapore reference shows data-link sublayer of LAPV5. The table in fact replaces the TEI-assigned state by the link-not-established state, and thus, teaches away from using the TEI-assigned state. Neither reference, either alone or in combination with the Kobayasi et al. reference, teaches transitioning a device from Q.922 state 4 to Q.922 state 5 according to the method of claim 1.

Accordingly, claim 1 is submitted as patentable over the art of record.

Claims 2-5, depending either directly or indirectly from claim 1, are submitted as patentable for at least the same reasons as claim 1.

Claims 11 and 16, and the claims depending therefrom, are also submitted as patentable for at least the reasons discussed above with respect to claim 1.

The other references cited, including Brown and the MCI message, do not remedy the deficiencies of the primary references.

V. Conclusion:

For the foregoing reasons, Applicant believes that all of the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at (408) 399-5608.

Respectfully submitted,



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